



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/538,327

03/10/2006

Ola Fagrell

12466

1586

25570

7590

05/29/2009

ROBERTS MLOTKOWSKI SAFRAN & COLE, P.C.

Intellectual Property Department

P.O. Box 10064

MCLEAN, VA 22102-8064

EXAMINER

GRAY, JILL M

ART UNIT

PAPER NUMBER

1794

NOTIFICATION DATE

DELIVERY MODE

05/29/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

lgallaugh@rmsclaw.com

dbeltran@rmsclaw.com

bdiaz@rmsclaw.com

DETAILED ACTION

Claims

1. Claims 1-10 and 12 are pending. Claim 11 has been cancelled.

Response to Amendment

2. The rejection of claims 8-10 under 35 U.S.C. 112, second paragraph has been withdrawn in view of applicants' amendments.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-4, 7-10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Publication EP 0961,295 A1 (Cogan) in view of DeNicola, Jr. 5,047,446 (DeNicola).

Cogan discloses a coaxial cable comprising an inner electrical conductor and a dielectric insulation comprising an inert gas and a solid, wherein said solid can be a polymer such as propylene homo- or copolymer. See abstract and [0022]]. Cogan does not teach that the propylene polymer has strain hardening behavior.

DeNicola teaches a propylene polymer material having strain hardening behavior that can be used as wire and cable coating. In addition, DeNicola teaches that the propylene can be blended with other propylene homo- or copolymer materials, as required by claims 1 and 2. See entire document and for example, column 9, lines 5-10.

Art Unit: 1794

Cogan and DeNicola each teach propylene homo- or copolymer polymers that are used in the formation of cables wherein the propylene homo- or copolymer polymers are used as insulation or coating material. Thus, Cogan and DeNicola are analogous art.

As set forth previously, Cogan teaches that his cable comprises a conductor coated with a dielectric insulation such as propylene homo- or copolymer, but does not specifically teach a propylene polymer having strain hardening behavior. Cogan teaches polypropylene as a material having outstanding electrical properties, further teaching that the insulation preferably has a uniform cell distribution. Note page 3.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Cogan by forming the dielectric insulation layer by using a material having superior electric properties such as a polypropylene material, wherein said polypropylene material is a propylene homo- or copolymer as taught by DeNicola, with the reasonable expectation of success of forming a cable having a dielectric layer with superior electric properties and more uniform cell size and enhanced stability in the presence of oxygen.

Regarding properties such as the strain hardening behavior and melt flow rate (claims 1 and 7), the copolymer of the prior art is substantially similar to that contemplated by applicants. Therefore, the examiner has reason to believe that the prior art copolymer results in properties that are substantially the same as and render obvious those of the instant invention, in the absence of factual evidence to the contrary.

Regarding claims 3 and 4, it would have been obvious to the skilled artisan during routine experimentation to purify the propylene polymer to remove entrained catalyst. Accordingly, the limitations of present claims 3 and 4 are not construed to be a matter of invention in the absence of factual evidence of unexpected or superior properties of the resultant cable, whereby said properties are directly related to the claimed critical catalyst residue.

Regarding claims 8-10, Cogan teaches an expanded dielectric layer and that the nucleating agents can be added in an amount ranging from about 0.01 to about 5 percent by weight. In addition, Cogan teaches that the degree of expansion can be at least 60%. See pages 3 and 5.

Therefore, the combined teachings of Cogan and DeNicola would have rendered obvious the invention as claimed in present claims 1-4, 7-10 and 12.

5. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Publication EP 0961,295 A1 (Cogan) in view of DeNicola, Jr. 5,047,446, as applied above to claims 1-4 and 7-10, further in view of European Patent Publication EP 0634,454 A1 (Comer).

Cogan and DeNicola are as set forth above. Though DeNicola teaches that his propylene can be mixed with other propylene or ethylene homo or copolymers, he is silent as to the specific amounts. Comer teaches a polyolefin composition comprising a propylene polymer having strain hardening behavior present in an amount of from 5 to 95% by weight and a non-strain hardening behavior propylene polymer present in an amount of from 95 to 5% by weight having improved thermoformability. Comer teaches

Art Unit: 1794

that compositions containing strain hardening behavior propylene and at least 50 wt% of a non-strain hardening behavior propylene are known in the art. It would have been obvious to one having ordinary skill in the art to form a blend of a strain hardening propylene and a non-strain hardening propylene as taught by DeNicola, wherein the non-strain hardening propylene is present in an amount of at least 50 wt% as taught by Comer to achieve the predictable results of obtaining a polymer having good mechanical properties and thermoformability. As to the ratio of components, since the result sought and the ingredients used were known, it was within the expected skill of one having ordinary skill in this art to arrive at the optimum proportion of those ingredients, during routine experimentation.

Therefore, the combined teachings of Cogan, DeNicola, and Comer would have rendered obvious the invention as claimed in present claims 5-6.

Response to Arguments

6. Applicant's arguments filed February 9, 2009 have been fully considered but they are not persuasive.

Rejection of claims 1-4, 7-10, and 12 over Cogen in view of DeNicola, Jr.

Applicants argue that no *prima facie* case of obviousness has been established absent a proper motivation to combine.

In this regard, the examiner disagrees. It is the examiner's position that "there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art." *In re McLaughlin*, 170 USPQ

Art Unit: 1794

209 (CCPA 1971). Also, the motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved. In particular, it is the examiner's position that all of the claimed elements were known in the prior art references Cogan and DeNicola, namely, cables insulated with propylene homo- or copolymer and propylene homo- or copolymer materials having strain hardening behavior that can be used as wire and cable coatings. The only difference is the combination of propylene homo- or copolymer having strain hardening behavior being used as the propylene insulation material of Cogan. It would have been obvious to one having ordinary skill in the art to use the propylene homo or copolymer of DeNicola as the solid component of the dielectric layer of Cogan with no change in their respective functions, i.e. cable coatings and the combination would have yielded predictable results (a cable having good electrical properties and uniform cell size) to one of ordinary skill in the art at the time the invention was made.

Applicants argue that the actual language of DeNicola suggests that his polypropylene can be used as a "coating" for wire or cable and a "coating" is not necessarily the dielectric layer, but can be an outer layer, further arguing that it is unclear from the actual text of the references in combination, whether DeNicola, Jr. fairly suggest the use of his polypropylene as a dielectric layer, or merely as a covering layer and that there is no evidence within the DeNicola reference which would suggest to the skilled artisan that any particular electrically-related benefit would be derived from use of his polymer as a dielectric layer. Applicants further argue that the examiner's

Art Unit: 1794

proposed substitution is based upon an impermissible hindsight reconstruction of the presently claimed invention, and not upon the teachings of the references themselves.

In response thereto, "Section 103 requires us to presume full knowledge by the inventor of the prior art in the field of his endeavor." *In re Winslow*, 151 USPQ 48 (CCPA 1966). Also, "[t]he test for combining references is not what the individual references themselves suggest but rather what the combination of the disclosures taken as a whole would suggest to one of ordinary skill in the art." *In re McLaughlin*, 170 USPQ 209 (CCPA 1971). It is the position of the examiner that the teachings of DeNicola that his polypropylene could be used as "wire or cable coating" would have provided a suggestion to the skilled artisan of the suitability of his (DeNicola) materials in those applications known in this art to embrace "wire or cable coating", including, insulation layers, (solid and/or foamed), inner, intermediate, and/or outer layers or jacketing layers, etc. The fact that DeNicola does not specifically identify each particular type of "wire or cable coating" does not preclude the clear direction he provided to the skilled artisan that his polypropylene can be used as such and the suggestion of a reasonable expectation of success of obtaining wires or cables suitably coated with said materials. Moreover, Cogan clearly discloses a preference for materials in his dielectric insulation layer that have outstanding electrical properties, such as polypropylene. It should also be noted that Cogan discloses that his dielectric insulation layer is formed by a solid or semi-solid polymer that is expanded by chemical or physical means. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that

Art Unit: 1794

any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Applicants argue that there is no evidence whatsoever that the DeNicola strain hardened polymer meets the limitations of claim 1, i.e. having a haul off force $F_{\max} > 5$ cN and a draw down velocity $v_{\max} > 150$ mm/s. Thus, even in combination, the cited references fail to disclose each and every limitation of the claims.

In this regard, and as set forth previously, DeNicola teaches propylene homo- or copolymer materials that have strain hardening behavior. The propylene of DeNicola appears to be the same as or substantially similar to that of applicants. There is no evidence on this record to the contrary.

Therefore, the examiner's position remains that the combined teachings of Cogen and DeNicola would have rendered obvious the invention as claimed in present claims 1-4, 7-10, and 12.

Rejection of claims 5-6 over Cogen in view of DeNicola, Jr. and further in view of Comer

Applicants argue that Comer fails to cure the deficiencies of Cogen and DeNicola, Jr. because Comer is silent as to the dielectric properties of his materials and provides no motivation to combine his teachings with either or both of Cogen or

Art Unit: 1794

DeNicola, Jr. and that the reduced gloss and "improved thermoformability" of the Comer compositions is entirely irrelevant to the use as a dielectric in a coaxial cable.

In this regard, it is the examiner's position that Comer is relied upon for all that he would have reasonably conveyed to one having ordinary skill in this art at the time the invention was made, namely, that polyolefin compositions containing strain hardening behavior propylene and at least 50 wt% of a non-strain hardening behavior propylene are known in the art. Cogen establishes that materials having outstanding electrical properties such as polypropylene are desirable, and DeNicola teaches that his propylene homo- or copolymers having strain hardening behavior can be blended with other propylene having non-strain hardening behavior, and that his materials are suitable for wire and cable coatings. Again, [t]he test for combining references is not what the individual references themselves suggest but rather what the combination of the disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Accordingly, the collective teachings of the prior art would have reasonably suggested a cable coated with a propylene material comprising a blend of propylene having strain hardening behavior and propylene having non-strain hardening behavior, wherein each of the propylene components are present in the instant claimed amounts.

Therefore, when considered as a whole, the examiner's position remains that the combined teachings of Cogen, DeNicola, and Comer would have rendered obvious the invention as claimed in present claims 5 and 6.

No claims are allowed,

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill Gray whose telephone number is 571-272-1524.

The examiner can normally be reached on M-Th and alternate Fridays 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on 571-272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1794

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jill Gray/
Primary Examiner
Art Unit 1794

jmg